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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,320	02/12/2004	Vijay Pillai	903-017 (203132)	5245
24295	7590	04/19/2006	EXAMINER	
Rodney T. Hodgson, Ph.D. 822 Pines Bridge Rd. Ossining, NY 10562			BROWN, VERNAL U	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/779,320	<b>Applicant(s)</b> PILLAI ET AL.	
	<b>Examiner</b> Vernal U. Brown	<b>Art Unit</b> 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/02/06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This action is responsive to communication filed on February 02, 2006.

#### ***Response to Amendment***

The examiner has acknowledged the amendment of claims 1-5, 11 and the addition of claims 12-22. The amendment of the specification is accepted by the examiner.

#### ***Response to Arguments***

Applicant's arguments filed February 2, 2006 have been fully considered but they are not persuasive.

Regarding applicant's argument regarding sending power to the tag on page 11, Kenny et al. teaches sending power for a time interval to a tag at first frequency in the low frequency range (paragraph 0018) and transmitting a second signal at second frequency in the high frequency range when a response is not received from the tag after the transmission of the low frequency signal (paragraph 0033). The transmitted signal to the tag contains energy (paragraph 0019) and a first and second power ( $P_j$  and  $P_{j+1}$ ) is inherently associated with the first and second signal respectively. The LF signal is transmitted before the HF signal and is therefore transmitted at different time interval because they are not transmitted at the same time.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 12, 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Kenny et al. US Patent Application 20040036595.

Regarding claims 1-2 and 12, Kenny et al. teaches sending power for a time interval to a tag at first frequency in the low frequency range (paragraph 0018) and transmitting a second signal at second frequency in the high frequency range when a response is not received from the tag after the transmission of the low frequency signal (paragraph 0033). The transmitted signal to the tag contains energy (paragraph 0019) and a first and second power ( $P_j$  and  $P_{j+1}$ ) is inherently associated with the first and second signal respectively. The LF signal is transmitted before the HF signal and is therefore transmitted at different time interval because they are not transmitted at the same time. Kenny et al. teaches the time between sending power ( $P_j$  and  $P_{j+1}$ ) is less than a time in which the tag loses its function because the transmission of the response signal from the tag provides evidenced that the function of the tag is not loss due to lack of power (paragraph 0018-0019).

Regarding claim 3, Kenny et al. teaches the signals are transmitted in order for the tag to identify themselves (paragraph 0033-0034). The sending of the signal is therefore stopped after no further tag identifies themselves.

Regarding claim 4, Kenny et al. teaches transmitting signal at different range and the power of the signal varied with the range (paragraph 0021).

Regarding claim 16, Kenny et al. teaches transmitting a high frequency signal to the tags when no response is received from the tag (paragraph 0033).

Regarding claim 17, Kenny et al. teaches transmitting a high frequency signal to the tags when no response is received from the tag (paragraph 0033) after first sending a LF signal at a first power (paragraph 0018). The time in which the interrogator is expected to received the response from the tag is considered the protocol time limit.

Regarding claims 18-22, Kenny et al. teaches sending power for a time interval to a tag at first frequency in the low frequency range (paragraph 0018) and transmitting a second signal at second frequency in the high frequency range when a response is not received from the tag after the transmission of the low frequency signal (paragraph 0033). The transmitted signal to the tag contains energy (paragraph 0019) and a first and second power ( $P_j$  and  $P_{j+1}$ ) is inherently associated with the first and second signal respectively. Kenny et al. teaches an antenna coupled to the base station for transmitting the signal to the tags (paragraph 0020). The LF signal is transmitted before the HF signal and is therefore transmitted at different time interval because they are not transmitted at the same time.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenny et al. US Patent Application 20040036595 as applied to claims 1-5 above, and further in view of Applicant admitted prior art.

Regarding claims 5, 9-11, Kenny et al. teaches transmitting the interrogation signal at a first frequency and a second frequency and the range of the interrogation signal is varied with the power and/or frequency (paragraph 0021) but is not explicit on teaching reducing the power  $P_j$  when the time  $t_j$  is too short and the power is a function of time. The applicant's admitted prior art on page 3 of the specification teaches the amount of power than can be pulsed in a particular frequency band for a short time is much higher than that which can be broadcasted continuously based on the regulation of the Federal Communications Commission. The transmitted power is therefore a function of time and is obvious to increase or decrease the transmitted power based on the time required to identify the tags in the interrogation field in order to satisfy the regulation of the Federal Communication s Commission.

It would have been obvious to one of ordinary skill in the art to reduce the power  $P_j$  when the time  $t_j$  is too short and the power is a function of time in Kenny et al as evidenced by the Applicant Admitted prior art because Kenny et al. suggests transmitting the interrogation signal at a first frequency and a second frequency and the range of the interrogation signal is varied with the power and/or frequency and the applicant admitted prior art teaches the amount of power than can be pulsed in a particular frequency band for a short time is much higher than that which can be broadcasted continuously based on the regulation of the Federal Communication s Commission and the transmitted power is therefore a function of time and is obvious to increase

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or decrease the transmitted power based on the time required to identify the tags in the interrogation field in order to satisfy the regulation of the Federal Communications Commission.

Regarding claims 6-8, Claims 6-8 represents an optimization of the claimed invention of changing the time the interrogation signal is broadcast at a certain frequency. When the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

It would have been obvious to one of ordinary skill in the art to optimize the time of the transmitted interrogation signal as claimed because when the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenny et al. US Patent Application 20040036595 as applied to claims 12 above, and further in view of Paulsen et al. US Patent Application Publication 20050116823.

Regarding claims 13-15, Kenny et al. teaches transmitting an interrogation signal and the interrogator receiving a response within a time period (paragraph 0018) but is silent on teaching the response time is less than the reset and the power down time. Paulsen et al. in an art related object-tracking system teaches the reset function clears the internal register of the tag (paragraph

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0053). When the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

It would have been obvious to one of ordinary skill in the art to optimize the response time in Kenny et al. in view of Paulsen et al. because when the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vernal U. Brown whose telephone number is 571-272-3060. The examiner can normally be reached on 8:30-7:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 571-272-3998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vernal Brown  
April 5, 2006



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